

Notice of Allowability

Application No.

10/690,843

Examiner

Bernarr E. Gregory

Applicant(s)

NATSUME ET AL.

Art Unit

3662

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address–
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment received 29 June 2004.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ The drawings filed on 05 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ Including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Bernarr E. Gregory
Primary Examiner
Art Unit 3662
Tel.: (703) 306-5765

Art Unit: 3662

1. The following is an examiner's statement of reasons for allowance:

None of the prior art of record either taken alone or taken in any possible combination would anticipate or would tend to render obvious Applicants' claimed method as set forth in independent claim 1 that is particularly characterized at least by the claimed method steps of "frequency modulating a radar wave signal ... the predetermined constant time" and "mixing the frequency-modulated radar wave signal transmitted from the reference object ... that of the reflection signal" taken together and taken in the overall context of independent claim 1.

Dependent claims 2-6 are allowable for at least the reasons for which claim 1 is allowable.

None of the prior art of record either taken alone or taken in any possible combination would anticipate or would tend to render obvious Applicants' claimed method as set forth in independent claim 7 that is particularly characterized at least by the claimed method steps of "first mixing the frequency-modulated first radar wave signal ..."; "first sweeping the first beat signal ..."; "second frequency-modulating a second radar wave signal ..."; and "second mixing the frequency-modulated second radar wave signal ..." taken together and taken in the overall context of independent claim 7.

Dependent claim 8 is allowable for at least the reasons for which claim 7 is allowable.

None of the prior art of record either taken alone or taken in any possible combination would anticipate or would tend to render obvious Applicants' claimed

apparatus as set forth in independent claim 9 that is particularly characterized at least by the claimed "frequency-modulating unit ... predetermined constant time" and "sweeping unit configured to ... component of the beat signal" taken together and taken in the overall context of independent claim 9.

Dependent claims 10-14 are allowable for at least the reasons for which claim 9 is allowable.

None of the prior art of record either taken alone or taken in any possible combination would anticipate or would tend to render obvious Applicants' claimed apparatus as set forth in independent claim 15 that is particularly characterized at least by the claimed "first mixing unit configured to ..."; "first sweeping unit ..."; "second frequency-modulating unit ..."; and "second mixing unit ..." taken together and taken in the overall context of independent claim 15.

Dependent claim 16 is allowable for at least the reasons for which claim 15 is allowable.

None of the prior art of record either taken alone or taken in any possible combination would anticipate or would tend to render obvious Applicants' claimed computer program product as set forth in independent claim 17 that is particularly characterized at least by the claimed "means for causing the signal processing unit to control ..."; "means for causing the signal processing unit to sweep the beat signal ..."; and "means for causing the signal processing unit to obtain the prediction distance based on ..." taken together and taken in the overall context of independent claim 17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (703) 306-5765. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (703) 306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bernarr E. Gregory
Primary Examiner
Art Unit 3662